## **ES543 Estuaries and Nearshore Systems**

An Analysis of the Sedimentary Facies of Plum Island Sound, MA Evidence of Channel Migration Karíssa Parker, Torí Pínheíro, Míkayla Thístle

Salt Marsh Channel Nutrient Enrichment and Erosion Jack Spangler, Kyle Woehrle, Kristin Yoshimura, Sarah Zollner

Dune Morphology and Vegetation on Crane Beach, MA Danielle Chudolij, Susannah Haskins, Katie Jalette, Sierra Sarkis

Erosion and Changing Vegetation Boundaries in Plum Island Sound, MA Cassandra Smith, Jillian Hayward, Nicoletta Leonardi

Comparison of Measured and Modeled Erosion in Plum Island Sound, MA Kasey Aderhold, Rahul Madan, Philip Souza

### \*\*\*\*\*

## **BI550 Marine Genomics**

Variations in the Structure of NF-kB - A Key Stress Response Protein in the Cnidaria Lukas Defilippo and Allison Lorenc

Using Next Generation Sequencing to Monitor Photosynthetic and Symbiotic Genes as Markers for Coral Health Derek Scolaro and Aríanna Medína

Assessing the Diversity of Cnidarian Fluorescent Proteins Using Next Generation Sequencing Jessie Mathews and Kimberly Wong

Putative Toxin Proteins in the Lined Sea Anemone Edwardsíella Líneata. Lydía Glenn and Zack Lepore

Does Tentacle Gene Expression Explain the Novel Life Cycle of the Parasitic Sea Anemone Edwardsíella Líneata

Venus Fung and Caitlin Russell

\*\*\*\*\*

## **BI/GE523 Marine Urban Ecology**

The Composition of Runoff Water in Historic Boston Sierra Sarkis and Sarah Guitart

The Effects of Litter and Goose Feces Pollution on the Charles River Danielle Chudolij, Katie Jalette, Allison Lorenc

> Locked In or Locked Out: Trapped Either Way Susannah Haskíns

The effects of urban green space on Boston's rivers Justín Maíllet and Díana Acosta

How Urbanization Impacts Salt Marshes: A Comparative Study Between Belle Isle Marsh and Rowley Marsh *Karissa Parker, Emily Starnes, Kimberly Wong* 

Investigation correlations between terrestrial development and marine organism diversity and abundance in the Boston Seaport District Blyss Buitrago and Megan Ware

## ES557 Oceanography of Stellwagen Bank

Water Mass Transport Across Stellwagen Bank National Marine Sanctuary Jíllian Hayward, Victoria Pinheiro, Cassandra Smith, Rick Murray

Stellwagen Bank A01 Buoy: Physical and Chemical Parameters Kirsten Krock, Nicoletta Leonardi, Caitlin Russell

Investigating the Abundance of Three Macronutrients Within the Stellwagen Bank National Marine Sanctuary Lukas Defílíppo, Phílíp Souza, Krístín Yoshímura, Sarah Zollner

# BI/GE578 Marine Geographic Information Science

Modeling harmful anthropogenic impacts on sea turtle nesting beaches in Florida

## Caítlín Grelottí

Using ArcGIS to Determine Most Suitable fish Pond (Loko i`a) Habitat on Oahu, Hawaii  ${\cal H}edee~{\cal K}im$ 

Theoretical Impact of global warming on green sea turtle (Chelonia mydas) sex determination

Kyle Woehrle and Jack Spangler

Assessing large vessel acoustic emission intensity in the Gulf of Maine: an estimation of right whale agitation caused by anthropogenic noise emission Jessica Alexandria

Creating a Habitat Sanctuary on the Massachusetts Coast for Ostrea edulis, the European Oyster

Karíssa Parker

The Spatial Analysis of Lionfish, Pterois volitans, in the Florida Keys Region Samantha Andrews and Corínne Burns

Effects of Increased Developed Land Cover on Nutrient Loads in Rivers Surrounding the Puget Sound

Sarah Guítart

A Comparative Study of Boston Harbor Water Quality from 1995 to 2010: A True

**Environmental Success Story** 

Sierra Sarkis

\*\*\*\*\*\*\*

## **BI546 Marine Megafaunal Ecology**

Understanding the Large-Scale Movements of Humpback Whales and Leatherback

Turtles

Blyss Buitrago, Kirsten Krock, and Megan Ware

Distribution and Stomach Content of Groundfish in the Southern Portion of the Stellwagen Bank National Marine Sanctuary Samantha Andrews, Corínne Burns and Hedee Kím

Effects of Sediment Type on Distribution and Abundance of Seabirds with the Stellwagen Bank National Marine Sanctuary Caitlin Grelotti, Sarah Guitart, and Emily Starnes

Fine-Scale Behaviors of Humpback Whales in Relation to Plankton Abundance and Sighting Locations in Stellwagen Bank National Marine Sanctuary Winnie Hsieh, Diana Acosta, and Trevor Etheridge

Abundance of Calanus Finmarchicus in Stellwagen Bank National Marine

Sanctuary: A Tool for Megafauna Conservation Jessica Alexandria, Justin Maillet, and Christina Teng \*\*\*\*\*\*\*\*\*\*

## **BI539 Coral Reef Dynamics**

Habitat Shift of the Threespot Damselfish Stegastes planifrons: A Model for Coral Reef Health and Distribution *Winnie Hsieh* 

> Investigating the Taphonomy of Coral Reefs, Seagrass Beds and Mangrove Communities of Calabash Caye, Belize Blyss Buitrago

Effects of Shading and Flow on Interspecific Scleractinian Coral Competition Christina K. Teng

Interspecific Spatial Competition Between Scleractinian Corals and Certain Anthozoans *Rahul Madan* 

Coral Habitat Preference Manipulation and Age and Gender Caused Territorial Behavior of the Threespot Damselfish, *Stegastes planifrons Sarah Zollner* 

Contrasting Functional Roles of Herbivorous Surgeonfish Species on Coral Reefs Lukas DeFilippo

The influence of life phases on Caribbean parrotfish algal preference  $$\mathcal{V}\!enus\ {\mathcal{F}}\!ung$$ 

Functional characterization of grazing by two Caribbean parrotfishes, Sparisoma viride and Sparisoma aurofrenatum Lydia Glenn

> Bite Frequencies of Parrotfish Based on Average Species Size Susannah Haskíns

An Observational Study Regarding Coral Reef Fish Population Dynamics as Indicators of Habitat Connectivity Among Coral Reefs, Mangroves, and Seagrass Beds Kimberly Wong

Analyzing the Relationship Between Coral Reef Rugosity and Fish Biodiversity in Calabash Caye, Belize  ${\cal K} irsten \ {\cal K} rock$ 

Dominant species of the Belizean Reef: Competitive interactions between scleractinia, gorgonians, and sponges on Calabash Caye, Belize Justín Maíllet

A gradient in species richness of chlorophyta and rhodophyta epibionts on prop roots of the red mangrove, Rhizophora mangle *Mikayla Thistle* 

Species richness variances of sponges and tunicates in Rhizopora mangle roots of different habitats at Calabash Caye, Belize Jíllian Hayward

A Coral Health Index Assessment of Belizean Reef Ecosystems at Calabash Caye Jessie Mathews

An Analysis of the Physiochemical Properties of Three Different Mangrove Communities in Calabash Caye, Belize. *Víctoría Pínheíro* 

Find Your Inner CHI: an Analysis of Fish Coral Health Index Scores as a Function of Reef Habitat at Calabash Caye, Belize *Caitlin Russell* 

Investigating the Role of Ecological Stress in the Distribution and Abundance of Littorina angulifera in the Mangrove Forests of Calabash Caye, Belize

Megan Ware

Effects of sedimentation on interspecific competitive interactions by scleractinian corals in Turneffe Atoll, Belize *Emily Starnes* 

The Functional Diversity of Herbivores in Coral Reefs

Katíe Jalette

\*\*\*\*\*

## **BI569 Tropical Marine Invertebrates**

Mangrove Sponge Identification and Abundance

Caitlin Grelottie, Karissa Parker, Jack Spangler, and Kyle Woerhle

Assessing the Coral Health of Two Belizian Backreefs

Allison Lorenc, Arianna Medina, Danielle Chudolij, & Philip Souza

Larval Recruitment Distribution

Samantha Andrews, Corinne Burns, Hedee Kim, and Derek Scolaro